APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,504	08/29/2001	Shean-Guang Chang	ORACL-01063US1	9220

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EXAMINER
SHINGLES, KRISTIE D

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td rowspan="2">Office Action Summary</td><td colspan="2">Application No.</td><td colspan="2">Applicant(s)</td></tr>
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Office Action Summary	**Application No.** 09/942,504	**Applicant(s)** CHANG ET AL.
	Examiner KRISTIE D. SHINGLES	**Art Unit** 2441

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 November 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>8-20,22,24,26,27 and 29</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>8-20, 22, 24, 26, 27 and 29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment
Claims 8, 15, 22 and 24 have been amended.
Claims 1-7, 21, 23, 25, 28, 30 and 31 have been canceled.

Claims 8-20, 22, 24, 26, 27 and 29 are pending.

Response to Arguments

I.   Applicant's arguments with respect to claims 8, 15 and 21-24 have been considered but

are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

II.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

   (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
   section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
   such that the subject matter as a whole would have been obvious at the time the invention was made to a person
   having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
   manner in which the invention was made.

III.   **Claims 8, 10, 15, 17, 22 and 24** are rejected under 35 U.S.C. 103(a) as being
         unpatentable over *Subbiah et al* **(US 6,538,992) in view of** *Dravida et al* **(US
         7,146,630) in further view of** *Zweig et al* **(US 7,280,495).**

         a.   **Per claim 8**, *Subbiah et al* teach the system for providing two qualities of service

from a single data stream, comprising:

         • storing a selection of at least one of a first quality of service choice and a second
           quality of service choice for each user (*col.2 lines 42-62, col.3 lines 18- 28, col.5
           lines 31-36, col.6 lines 59-64—storing the users QoS choice in memory*); and

- receiving, to said application server, one or more messages and processing each message received on a data stream using a single API of the messaging service (*col.5 lines 1-44, col.6 lines 59-64*);

Subbiah et al fail to explicitly teach an application server that employs a messaging service to deliver messages between a plurality of users, wherein the selection determines whether or not the user will be ensured of receiving the messages; segregating the plurality of users into a first group and a second group according to the selection of the quality of service choice associated with said each user such that users in the second group will be ensured of receiving the messages, while users in the first group will not be ensured of receiving the messages; multicasting the message to the first group selecting the first quality of service wherein each user in the first group is not ensured of receiving said message, sending the message directly to each user in the second group selecting the second quality of service via point-to-point protocol and ensuring that the user in the second group receives the message; and receiving, by the messaging service of the application server, a response that delivers an acknowledgement of receipt of the message from the second group of users selecting the second quality of service choice and receiving no acknowledgement from the first group of users selecting the first quality of service choice; wherein the application server transmits a single message by both (1) multicasting said message and (2) directly sending said message via the point-to-point protocol to multiple users.

However, *Dravida et al* explicitly teach using a Tag/Topology server differentiating and indicating QoS traffic types based on control bits, wherein routing identification is used to group traffic based on unique routing IDs for unicast (point-to-point) traffic, multicast traffic and broadcast traffic (*col.18 lines 33-67*). Furthermore, *Zweig et al* teach

separate groups of users based on the unicast and multicast quality of service, wherein the unicast users acknowledge receipt of the data (*Abstract, col.1 lines 51-62, col.5 line 54-col.6 line 66*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Subbiah et al* with *Dravida et al* for the purpose of providing a storage space for maintaining the type quality of service specific to each user and providing separate multicasting and unicasting quality of service capabilities in order to transmit packets according to their associated service levels—wherein packets of a particular quality/class of service are given priority over other packets and the routing IDs for the different QOS traffic is distinguishable for associating QOS groups with particular routing IDs. Futhermore it would have been obvious to modify the combined systems of *Subbiah et al* and *Dravida et al* with *Zweig et al* in order to create separate user groups for the unicast and multicast services, with acknowledgement of the unicast messages, which is common in the art. Acknowledgement messages are commonly used in the art to confirm the receipt of messages at the receiving terminal or destination.

b.   **Claims 15, 22 and 24** contain limitations that are substantially equivalent to claim 8 and are therefore rejected under the same basis.

c.   **Per claim 10,** *Subbiah et al* and *Dravida et al* with *Zweig et al* teach the method according to claim 8, *Subbiah et al* further teach the method further comprising a listener that listens for information sent in the data stream to one of the users of the system (*col.7 lines 1-37*).

d.   **Claim 17** is substantially similar to claim 10 and is therefore rejected under the same basis.

IV.   **Claims 11 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over
Subbiah et al (US 6,538,992) and *Dravida et al* (US 7,146,630) in view of *Zweig et al*
(US 7,280,495) in further view of *Lefebvre* (US 7,123,619).

     a.   **Per claim 11,** *Subbiah et al, Dravida et al* and *Zweig et al* teach the method

according to claim 8 as applied above. *Subbiah et al* (*col.4 lines 56-62, col.5 lines 47-51, col.8*

lines 3-5) and *Dravida et al* (*col.26 line 30-col.28 line 64*) teach the use of queues for each

specified QoS, allowing users to specify different QoS parameters for different application

services, and provisioning voice, data and/or video packets with different QoS requirements, yet

both fail to explicitly teach the method further comprising the step of queuing messages sent to a

user by either quality of server to be delivered one by one to the user. However, *Lefebvre*

specifically discloses users having the ability to transmit and receive data of different QoS levels

with virtual channels allocated to each QoS (*col.1 lines 61-65, col.6 lines 59-61*). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to combine the

teachings of *Subbiah et al, Dravida et al* and *Zweig et al* with *Lefebvre* for allowing user's to

receive data with different QoS levels since users are known to transmit and receive different

types of data, wherein different types of data such as voice and video require service constraints

different from data such text and documents.

     b.   **Claim 18** is substantially similar to claim 11 and is therefore rejected under the

same basis.

V.   **Claims 9, 14 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over
Subbiah et al (US 6,538,992) and *Dravida et al* (US 7,146,630) in view of *Zweig et al*
(US 7,280,495) in further view of *Henderson et al* (US 7,133,400).

     a.   **Per claim 9,** *Subbiah et al, Dravida et al* and *Zweig et al* teach the method

according to claim 8 as applied above. *Subbiah et al* (*col.4 lines 56-62, col.5 lines 47-51, col.8*

lines 3-5) and *Dravida et al* (*col.26 line 30-col.28 line 64*) teach the use of queues for each specified QoS, allowing users to specify different QoS parameters for different application services, and provisioning voice, data and/or video packets with different QoS requirements, yet fail to explicitly teach the method further comprising the step of filtering the messages received by a user by either quality of service. However, *Henderson et al* specifically teach implementing a filtering engine that filters messages based on the user's QoS requirements (*col.10 lines 44-63*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Subbiah et al, Dravida et al* and *Zweig et al* with *Henderson et al* for provisioning a system that filters messages. Filtering is well-known in the art, wherein filtering techniques are commonly used in communications for secured transmissions to ensure data integrity.

  b. **Claims 14 and 16** are substantially similar to claim 9 and are therefore rejected under the same basis.

VI. <u>**Claims 12, 13, 19, 20, 26, 27 and 29**</u> **are rejected under 35 U.S.C. 103(a) as being unpatentable over** *Subbiah et al* **(US 6,538,992) and** *Dravida et al* **(US 7,146,630) in view of** *Zweig et al* **(US 7,280,495) in further view of** *Baum et al* **(US 6,850,495).**

  a. **Per claim 12,** *Subbiah et al*, *Dravida et al* and *Zweig et al* teach the method according to claim 8 as applied above, yet fail to further explicitly teach the method further comprising the step of tagging each message with a sequence number so that a user can tell if a message has been missed. However, *Baum et al* teach the use of sequence numbers in packet transmission for flow and error control (*col.2 lines 25-45, col.3 line 66-col.4 line 16 and col.5 line 5-col.6 line 9*). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teachings of *Subbiah et al*, *Dravida et al* and *Zweig et al* with *Baum et al* for the purpose of providing sequence numbers in packet messages in order to insure the proper reassembly of the packets at the receiving end. Utilizing sequence numbers in packet transmission protocols is a common and well-known technique in the art for providing flow and error control indicia.

      b.   **Claim 19** is substantially similar to claim 12 and is therefore rejected under the same basis.

      c.   **Per claim 13,** *Subbiah et al*, *Dravida et al* and *Zweig et al* teach the method according to claim 8 as applied above, yet fail to further explicitly teach the method further comprising the step of tagging each message so that a user can tell the data stream from which the message was received. However, *Baum et al* teach the use of sequence numbers in packet transmission for flow and error control (*col.17 lines 20-62, col.19 line 16-col.20 line 21 and col.23 line 25-col.24 line 12*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Subbiah et al*, *Dravida et al* and *Zweig et al* with *Baum et al* for the purpose of providing sequence numbers in packet messages in order to insure the proper reassembly of the packets at the receiving end. Utilizing sequence numbers in packet transmission protocols is a common and well-known technique in the art for providing flow and error control indicia.

      d.   **Claim 20** is substantially similar to claim 13 and is therefore rejected under the same basis.

      e.   **Per claim 26,** *Subbiah et al*, *Dravida et al* and *Zweig et al* teach the method according to claim 8 as applied above, yet fail to further explicitly teach the method wherein the

step of ensuring that the user receives the message includes receiving a response which delivers an acknowledgement of the receipt of data from that user. However, *Baum et al* teach acknowledgement that are sent back from the receiving user (*col.2 lines 25-31, col.4 lines 9-16*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Subbiah et al*, *Dravida et al* and *Zweig et al* with *Baum et al* for the purpose of sending messages that acknowledge the receipt of data. Acknowledgement messages are commonly used in the art to confirm the receipt of messages at the receiving terminal or destination.

       f.   **Claims 27 and 29** are substantially similar to claim 26 and are therefore rejected under the same basis.

<div align="center">Conclusion</div>

VII.   The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: Ho et al (6950397), Sen et al (6845389), Lee et al (6728777), Allan et al (6788696).

VIII. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

      A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

IX.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kristie D. Shingles whose telephone number is 571-272-3888.

The examiner can normally be reached on Monday 8:00am-5:30pm.

          If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

          Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only.   For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie D. Shingles
Examiner
Art Unit 2441

/KDS/
/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444